WHAT IS CLAIMED IS:

1. A data transfer method for a data processing system which allows both processes to be executed in a first data processor and in a second data processor to communicate with each other by direct data transfer between their user-spaces, wherein

communication via a first connection between a first process in the first data processor and a second process in the second data processor is taken over by a second connection between a third process in the first data processor and the second process to continue the communication;

the method comprising:

a first step in which the first process and the second process intermit the communication via the first connection;

a second step in which a second connection is newly established between the third process and the second process in response to a request from the first process; and

a third step in which the second connection takes over the communication from the first connection in response to a request from the first process to continue the communication.

2. The data transfer method as defined in Claim 1, wherein the third process is created by a process creating function.

3. The data transfer method as defined in Claim 1, wherein the first step includes:

a procedure for the first process to issue a request for intermission of data transmission to the second process; and

a procedure for the second process to intermit data transfer to the first process in response to the request and, upon completion of intermission, issues a report of completion of intermission to the first process.

4. The data transfer method as defined in Claim 3, wherein the first process memorizes the existence of operation for data reception after it requests the second process to intermit data transfer; and after it receives the report of completion of intermission, it copies the data received by the operation for data reception to the third process.

5. The data transfer method as defined in Claim 1, wherein the second step includes a procedure for either the second process or the third process or both to report establishment of the second connection to the first process.

6. The data transfer method as defined in Claim 1, wherein issuance of a request for establishment of the second connection at the second step is triggered by occurrence of an expected event in the first process.

7. The data transfer method as defined in Claim 1, wherein issuance of a request for establishment of the second connection at the second step is triggered by occurrence of an unexpected event in the first process.

8. The data transfer method as defined in Claim 1, wherein the first process detects and memorizes occurrence of data reception in that process before the establishment of the second connection.

9. The data transfer method as defined in Claim 1, wherein, when the first process detects occurrence of reception of data in that process before the establishment of the second connection, it issues a report of the detection to the third process.

10. The data transfer method as defined in Claim 1, wherein, when the first process detects occurrence of reception of data in that process before the establishment of the second connection and issues a report of the detection to the third

process, the first process and the third process cooperate
to copy the data from the first process to the third process.

11. The data transfer method as defined in Claim 1, wherein
the first connection is turned off after the establishment
of the second connection.

12. A data processing system comprising a first data
processor and a second data processor which are
interconnected by a network, and allowing both processes to
be executed in the first data processor and in the second
data processor to communicate with each other by direct data
transfer between their user-spaces;

  the system further comprising:

  a first means by which the first process and the second
process intermit the communication via the first
connection;

  a second means by which a second connection is newly
established between the third process and the second process
in response to a request from the first process; and

  a third means by which the second connection takes
over the communication from the first connection to continue
it.

13. The data transfer method as defined in Claim 1, wherein the method is implemented by an emulation library programmed so as to emulate the operation for socket communication and, communication can be made by executing the emulation library in the first and second data processors respectively, without the need for a change in user programs for socket communication to be executed by the first and second data processors respectively.

14. A computer-usable recording medium which stores an emulation library to implement a data transfer method by which communication via a first connection between a first process in a first data processor and a second process in a second data processor is taken over by a second connection between a third process in the first data processor and the second process to continue the communication;

the method comprising:

a first step in which the first process and the second process intermit the communication via the first connection;

a second step in which a second connection is newly established between the third process and the second process in response to a request from the first process; and

a third step in which the second connection takes over the communication from the first connection in response to a request from the first process to continue it.